

Remarks

Amendments to the Claims

The claims have been amended, as indicated above. The amendments to the indicated claims has been presented in accordance with the proposed revisions to 37 C.F.R. §1.121 as set forth in 1267 OG 106 (25 February 2003). No new matter has been introduced through the amending of the claims.

Rejection of Claims under 35 U.S.C § 102

Claims 10 and 13 are rejected under 35 U.S.C §102 (b) as being anticipated by Hawkins et al. (U.S. 4,822,755). The Applicants respectfully traverse this rejection. Independent claim 10 recites a method of fabricating a fluid ejection device comprising: bonding a top surface of a first substrate to a bottom surface of a second substrate, wherein a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding; and etching a fluid channel in the first and second substrates extending through an opening in the patterned etch mask layer. While Hawkins et al. discloses a method of fabricating large area semiconductor arrays, this reference does not teach, suggest, or even appreciate, among other things, bonding a top surface of a first substrate to a bottom surface of a second substrate, wherein a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding. Contrary to the Examiner's baseless contention, the patterned mask (32 as referenced by the Examiner in the Office Action, mailed 4/6/06) is located between the first and second substrates. See, for example, Fig. 3 and Column 3, lines 24-47 of Hawkins et al. The layer 30 clearly is not formed upon the first and second surfaces prior to bonding. The present invention, on the other hand, creates a mask that remains in-situ on/in the substrates, and it is used as an etch-"mask" that actually remains in-situ in the device. Clearly, Hawkins et al. teaches away from the present invention.

With respect to dependent claims 13, and 16, the Applicants contend that these dependent claims are also allowable over the art of record.

With respect to independent claim 18, claim 18 recites a method of fabricating a fluid channel for a fluid ejection device comprising: bonding a top surface of a first substrate to a bottom surface of a second substrate, such that a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding, wherein the top surface of the first substrate has a feed trench; etching a feed hole from a top surface of the second substrate to the top surface of the first substrate; and removing a remaining portion. While Hawkins et al. discloses a method of fabricating large area semiconductor arrays, this reference does not teach, suggest, or even appreciate, among other things, bonding a top surface of a first substrate to a bottom surface of a second substrate, such that a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding, wherein the top surface of the first substrate has a feed trench. Contrary to the Examiner's baseless contention, the patterned mask (32 as referenced by the Examiner in the Office Action, mailed 4/6/06) is located between the first and second substrates. See, for example, Fig. 3 and Column 3, lines 24-47 of Hawkins et al. The layer 30 clearly is not formed upon the first and second surfaces prior to bonding. The present invention, on the other hand, creates a mask that remains in-situ on/in the substrates, and it is used as an etch-"mask" that actually remains in-situ in the device. Clearly, Hawkins et al. teaches away from the present invention.

With respect to dependent claims 19, 21, and 24, the Applicants contend that these dependent claims are also allowable over the art of record. Therefore, the Applicants requests that the Examiner reconsider and withdraw the rejection.

Rejection of Claims under 35 U.S.C § 103

Claims 15-17 and 23 and 25 are rejected under 35 U.S.C §103 (a) as being unpatentable over Hawkins et al. in view of Hawkins et al. (U.S. 4,601,777) The Applicants respectfully traverse this rejection. As discussed above, independent claim 10 recites a method of fabricating a fluid ejection device comprising: bonding a top surface of a first substrate to a bottom surface of a second substrate, wherein a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding; and etching a fluid channel in the first and second substrates extending through an

opening in the patterned etch mask layer. While Hawkins et al. discloses a method of fabricating large area semiconductor arrays, this reference does not teach, suggest, or even appreciate, among other things, bonding a top surface of a first substrate to a bottom surface of a second substrate, wherein a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding. Contrary to the Examiner's baseless contention, the patterned mask (32 as referenced by the Examiner in the Office Action, mailed 4/6/06) is located between the first and second substrates. See, for example, Fig. 3 and Column 3, lines 24-47 of Hawkins et al. The layer 30 clearly is not formed upon the first and second surfaces prior to bonding. The present invention, on the other hand, creates a mask that remains in-situ on/in the substrates, and it is used as an etch-"mask" that actually remains in-situ in the device. Clearly, Hawkins et al. teaches away from the present invention.

While Hawkins et al. (U.S. 4,601,777) discloses a thermal ink jet print head and process thereof, this reference does not alleviate the myriad problems associated with Hawkins et al. (U.S. 4,822,755). For example, Hawkins et al. ('777) does not teach, suggest, or even appreciate, among other things, bonding a top surface of a first substrate to a bottom surface of a second substrate, wherein a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding.

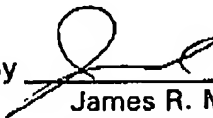
With respect to independent claim 18, Hawkins et al. ('777) does not teach, suggest, or even appreciate, among other things bonding a top surface of a first substrate to a bottom surface of a second substrate, such that a patterned etch mask layer is formed on at least one of the top surface of the first substrate and the bottom surface of the second substrate prior to bonding, wherein the top surface of the first substrate has a feed trench. Therefore, the Applicants request that the Examiner reconsider and withdraw the rejection.

The Applicants acknowledge the objection of Claims 11, 12, 14, 20, 22, and 26 as being dependent upon a rejected base claim. However, the Applicants aver that independent claims 10 and 18 are allowable over the art of record.

In view of the above, it is respectfully submitted that this case is in condition for allowance and now may be passed to issue forth with. A holding to this effect is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this patent application, the Examiner is invited to contact the undersigned attorney during normal Pacific Time Zone business hours.

Respectfully submitted,

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